

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P274451

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBSW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274451  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBSW0H  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, SINGLE WALLWASH WITH HAZE FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1400.2 lumens  
Efficiency: N/A  
Efficacy: 50.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

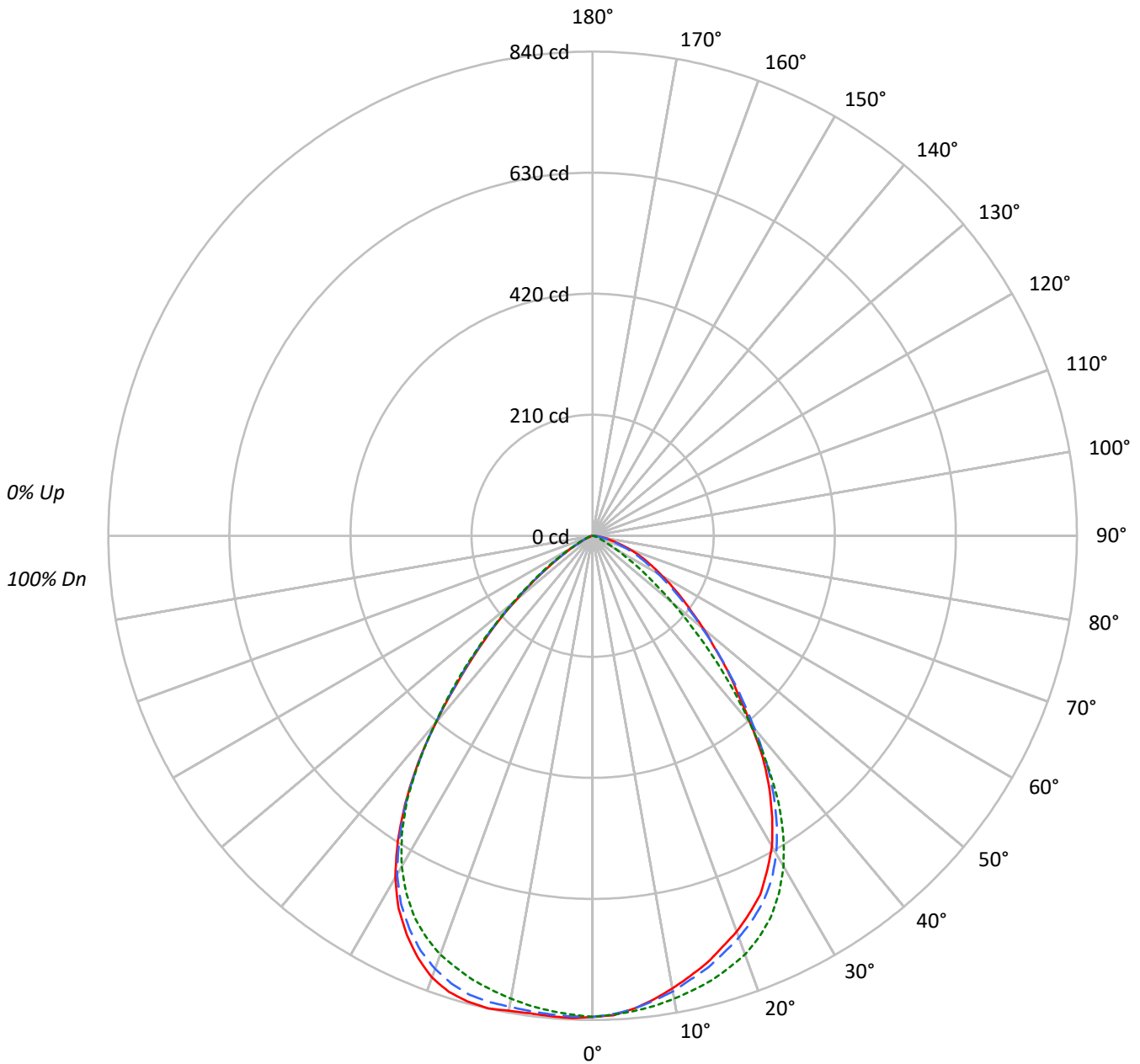
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	54450	54450	54450
5°	53931	54199	54789
10°	52819	54024	55422
15°	51812	53919	56506
20°	50738	53674	56618
25°	49483	52607	54925
30°	46850	49886	51558
35°	42546	44712	45118
40°	36315	36144	35965
45°	30503	27061	26231
50°	25476	18310	17396
55°	21441	11238	10203
60°	18150	5924	5128
65°	15715	3118	2485
70°	13066	1927	1354
75°	9654	1260	756
80°	7589	751	376
85°	6063	749	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.7	5.6
10°-20°	225.2	16.1
20°-30°	332.6	23.8
30°-40°	342.7	24.5
40°-50°	236.7	16.9
50°-60°	116.7	8.3
60°-70°	47.3	3.4
70°-80°	16.8	1.2
80°-90°	3.5	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	636.4	45.5
0°-40°	979.2	69.9
0°-60°	1332.6	95.2
0°-90°	1400.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1400.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	835	835	835	835	835	
5°	824	824	828	834	837	78
15°	767	775	798	824	837	216
25°	687	700	731	752	763	314
35°	534	547	561	564	566	331
45°	331	333	293	289	284	256
55°	188	181	99	93	90	170
65°	102	92	20	16	16	101
75°	38	32	5	3	3	43
85°	8	6	1	0	0	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6
2.5°	832.6	829.6	831.6	827.6	832.6	827.6	828.6	829.6	828.6	829.6	830.6
5°	823.5	820.5	823.5	818.5	823.5	820.5	820.5	821.5	821.5	822.5	823.5
7.5°	811.4	808.4	811.4	806.4	812.4	809.4	809.4	811.4	810.4	811.4	813.4
10°	797.3	793.3	796.3	793.3	799.3	795.3	797.3	797.3	797.3	800.3	802.4
12.5°	782.2	778.2	782.2	777.2	783.2	780.2	781.2	784.2	785.2	787.2	788.2
15°	767.1	762.0	764.1	761.0	767.1	764.1	765.1	769.1	769.1	772.1	775.1
17.5°	747.9	743.9	747.9	743.9	748.9	746.9	748.9	752.0	752.0	755.0	758.0
20°	730.8	726.8	729.8	726.8	732.8	729.8	730.8	734.8	735.8	738.9	741.9
22.5°	709.6	706.6	708.6	705.6	711.6	709.6	710.6	714.7	715.7	717.7	722.7
25°	687.4	681.4	684.4	682.4	688.5	685.4	687.4	691.5	693.5	696.5	700.5
27.5°	655.2	652.2	654.2	654.2	659.2	656.2	657.2	661.2	664.3	667.3	672.3
30°	621.9	616.9	618.9	619.9	623.9	621.9	623.9	628.0	629.0	633.0	637.0
32.5°	579.6	577.6	581.6	579.6	581.6	581.6	582.6	585.6	587.7	589.7	594.7
35°	534.2	530.2	534.2	532.2	537.3	534.2	537.3	540.3	540.3	544.3	547.3
37.5°	484.8	479.8	481.8	481.8	483.8	482.8	482.8	487.9	488.9	491.9	494.9
40°	426.4	424.4	428.4	427.4	428.4	428.4	429.4	432.4	434.4	435.4	436.5
42.5°	374.0	375.0	376.0	376.0	376.0	376.0	376.0	380.0	379.0	382.0	383.0
45°	330.6	326.6	328.6	327.6	330.6	327.6	330.6	333.6	331.6	334.7	332.6
47.5°	286.3	286.3	286.3	285.3	287.3	286.3	288.3	289.3	289.3	289.3	288.3
50°	251.0	248.0	249.0	249.0	250.0	249.0	251.0	252.0	252.0	250.0	245.9
52.5°	216.7	215.7	215.7	217.7	217.7	216.7	216.7	216.7	216.7	213.7	211.7
55°	188.5	186.5	187.5	187.5	187.5	187.5	188.5	187.5	187.5	184.5	181.4
57.5°	163.3	161.3	161.3	161.3	162.3	161.3	161.3	161.3	160.3	157.2	153.2
60°	139.1	138.1	139.1	139.1	140.1	139.1	139.1	139.1	137.1	134.1	130.0
62.5°	118.9	118.9	118.9	120.0	120.0	118.9	118.9	117.9	116.9	112.9	108.9
65°	101.8	100.8	101.8	101.8	102.8	102.8	101.8	100.8	99.8	95.8	91.7
67.5°	84.7	83.7	84.7	84.7	85.7	84.7	84.7	84.7	81.6	79.6	75.6
70°	68.5	67.5	67.5	67.5	68.5	66.5	67.5	67.5	65.5	62.5	58.5
72.5°	52.4	52.4	52.4	52.4	52.4	52.4	51.4	51.4	49.4	46.4	44.4
75°	38.3	38.3	39.3	39.3	38.3	38.3	38.3	37.3	36.3	34.3	32.3
77.5°	28.2	28.2	28.2	28.2	27.2	27.2	27.2	26.2	25.2	24.2	22.2
80°	20.2	20.2	20.2	19.2	20.2	19.2	19.2	19.2	17.1	16.1	15.1
82.5°	14.1	13.1	13.1	13.1	13.1	13.1	13.1	12.1	12.1	11.1	10.1
85°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.1	6.0	6.0
87.5°	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6
2.5°	830.6	830.6	832.6	829.6	834.6	831.6	830.6	835.6	832.6	831.6	833.6
5°	823.5	824.5	825.5	823.5	828.6	825.5	825.5	830.6	828.6	827.6	830.6
7.5°	814.5	815.5	817.5	816.5	820.5	818.5	819.5	824.5	822.5	822.5	825.5
10°	803.4	805.4	807.4	807.4	812.4	810.4	810.4	816.5	814.5	815.5	819.5
12.5°	790.3	793.3	796.3	797.3	802.4	799.3	800.3	807.4	806.4	807.4	811.4
15°	776.1	780.2	783.2	783.2	789.3	786.2	789.3	796.3	794.3	798.3	803.4
17.5°	760.0	764.1	768.1	769.1	775.1	773.1	777.2	784.2	784.2	786.2	792.3
20°	744.9	749.9	752.0	755.0	761.0	760.0	762.0	770.1	770.1	773.1	779.2
22.5°	724.7	729.8	733.8	736.8	741.9	741.9	744.9	752.0	752.0	754.0	760.0
25°	702.6	708.6	711.6	714.7	719.7	718.7	721.7	727.8	728.8	730.8	736.8
27.5°	674.3	679.4	683.4	685.4	692.5	688.5	691.5	698.5	697.5	699.5	704.6
30°	639.1	644.1	648.1	648.1	654.2	654.2	657.2	660.2	660.2	662.2	666.3
32.5°	597.7	603.8	603.8	606.8	610.8	606.8	610.8	614.9	612.9	615.9	618.9
35°	550.4	553.4	554.4	554.4	557.4	556.4	555.4	558.4	556.4	561.4	564.5
37.5°	492.9	496.9	494.9	496.9	495.9	492.9	492.9	497.9	493.9	494.9	497.9
40°	437.5	437.5	436.5	431.4	432.4	429.4	428.4	429.4	425.4	424.4	428.4
42.5°	380.0	379.0	376.0	368.9	369.9	364.9	360.9	360.9	358.8	357.8	358.8
45°	328.6	325.6	320.5	312.5	310.5	306.4	298.4	296.3	293.3	293.3	294.3
47.5°	281.2	277.2	269.1	260.1	255.0	250.0	241.9	238.9	233.9	231.8	233.9
50°	241.9	234.9	224.8	211.7	206.6	200.6	192.5	187.5	182.4	180.4	179.4
52.5°	205.6	195.5	185.5	169.3	165.3	159.3	148.2	143.1	138.1	134.1	134.1
55°	174.4	165.3	151.2	136.1	130.0	124.0	112.9	105.8	100.8	98.8	96.8
57.5°	146.2	136.1	123.0	106.8	100.8	94.8	83.7	76.6	71.6	68.5	66.5
60°	123.0	111.9	98.8	84.7	77.6	71.6	60.5	53.4	48.4	45.4	43.3
62.5°	100.8	91.7	78.6	65.5	59.5	53.4	44.4	37.3	32.3	30.2	27.2
65°	84.7	75.6	63.5	52.4	47.4	41.3	33.3	27.2	23.2	20.2	18.1
67.5°	68.5	61.5	51.4	41.3	36.3	32.3	25.2	20.2	16.1	14.1	13.1
70°	54.4	47.4	39.3	31.2	28.2	24.2	19.2	14.1	12.1	10.1	9.1
72.5°	40.3	35.3	29.2	23.2	20.2	18.1	13.1	11.1	8.1	7.1	6.0
75°	29.2	25.2	21.2	16.1	14.1	13.1	10.1	7.1	6.0	5.0	4.0
77.5°	20.2	18.1	14.1	11.1	10.1	9.1	7.1	5.0	4.0	3.0	3.0
80°	13.1	11.1	9.1	7.1	7.1	6.0	4.0	3.0	3.0	2.0	2.0
82.5°	8.1	7.1	6.0	5.0	4.0	4.0	3.0	2.0	2.0	1.0	1.0
85°	5.0	4.0	3.0	3.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
87.5°	2.0	2.0	2.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6
2.5°	833.6	833.6	835.6	832.6	834.6	834.6	836.6	832.6	834.6	835.6	837.6
5°	829.6	830.6	832.6	831.6	832.6	832.6	834.6	829.6	833.6	833.6	836.6
7.5°	825.5	825.5	827.6	826.5	828.6	829.6	831.6	827.6	831.6	831.6	834.6
10°	820.5	820.5	823.5	822.5	825.5	826.5	829.6	825.5	829.6	830.6	833.6
12.5°	813.4	814.5	817.5	817.5	820.5	822.5	825.5	823.5	828.6	829.6	833.6
15°	805.4	807.4	811.4	810.4	813.4	816.5	820.5	817.5	824.5	826.5	830.6
17.5°	795.3	797.3	800.3	800.3	803.4	805.4	810.4	808.4	814.5	815.5	820.5
20°	780.2	783.2	787.2	786.2	789.3	791.3	795.3	793.3	799.3	801.3	806.4
22.5°	762.0	764.1	767.1	767.1	770.1	772.1	776.1	773.1	779.2	780.2	784.2
25°	737.8	739.9	741.9	742.9	745.9	746.9	748.9	746.9	752.0	753.0	758.0
27.5°	706.6	707.6	710.6	710.6	712.6	713.7	716.7	712.6	719.7	719.7	722.7
30°	669.3	668.3	672.3	670.3	672.3	672.3	675.3	673.3	678.4	676.4	679.4
32.5°	619.9	621.9	621.9	619.9	623.9	622.9	622.9	620.9	623.9	624.9	627.0
35°	562.5	565.5	565.5	566.5	567.5	564.5	565.5	559.4	564.5	565.5	566.5
37.5°	500.0	496.9	499.0	495.9	501.0	494.9	494.9	490.9	494.9	494.9	495.9
40°	428.4	427.4	429.4	427.4	426.4	425.4	423.4	420.3	424.4	422.3	425.4
42.5°	360.9	359.9	359.9	357.8	356.8	356.8	354.8	352.8	351.8	351.8	356.8
45°	291.3	293.3	291.3	290.3	292.3	290.3	291.3	287.3	289.3	287.3	289.3
47.5°	232.8	233.9	231.8	229.8	232.8	229.8	229.8	226.8	230.8	230.8	228.8
50°	180.4	179.4	177.4	179.4	178.4	178.4	178.4	175.4	177.4	174.4	176.4
52.5°	133.1	132.0	132.0	131.0	132.0	131.0	131.0	130.0	130.0	129.0	130.0
55°	96.8	95.8	93.7	93.7	93.7	94.8	93.7	92.7	92.7	91.7	92.7
57.5°	65.5	63.5	63.5	63.5	63.5	62.5	62.5	61.5	62.5	61.5	62.5
60°	42.3	42.3	40.3	40.3	40.3	40.3	40.3	39.3	40.3	40.3	40.3
62.5°	26.2	26.2	25.2	24.2	25.2	24.2	24.2	24.2	25.2	24.2	25.2
65°	17.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
67.5°	12.1	11.1	11.1	11.1	11.1	11.1	11.1	10.1	11.1	11.1	11.1
70°	8.1	8.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
75°	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P274451

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBSW0H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	834.6	834.6	834.6	834.6	834.6	834.6	834.6	834.6
2.5°	834.6	835.6	833.6	834.6	832.6	834.6	835.6	837.6
5°	832.6	833.6	831.6	833.6	831.6	833.6	834.6	836.6
7.5°	830.6	832.6	830.6	832.6	830.6	832.6	833.6	835.6
10°	830.6	833.6	831.6	834.6	831.6	833.6	835.6	836.6
12.5°	830.6	833.6	832.6	834.6	833.6	835.6	837.6	839.7
15°	828.6	831.6	829.6	832.6	831.6	832.6	836.6	836.6
17.5°	817.5	820.5	820.5	822.5	822.5	825.5	827.6	829.6
20°	803.4	806.4	805.4	808.4	808.4	811.4	813.4	815.5
22.5°	782.2	786.2	785.2	788.2	787.2	789.3	793.3	792.3
25°	755.0	760.0	759.0	761.0	760.0	760.0	762.0	763.0
27.5°	721.7	724.7	723.7	725.7	723.7	725.7	727.8	728.8
30°	678.4	680.4	679.4	680.4	679.4	681.4	682.4	684.4
32.5°	626.0	629.0	626.0	628.0	627.0	627.0	631.0	629.0
35°	563.5	564.5	565.5	565.5	563.5	564.5	566.5	566.5
37.5°	493.9	499.0	492.9	495.9	494.9	494.9	494.9	497.9
40°	421.3	422.3	420.3	420.3	420.3	419.3	423.4	422.3
42.5°	352.8	353.8	352.8	349.8	350.8	350.8	353.8	349.8
45°	286.3	288.3	287.3	287.3	285.3	285.3	286.3	284.3
47.5°	226.8	228.8	225.8	226.8	224.8	226.8	225.8	227.8
50°	172.4	174.4	173.4	174.4	174.4	172.4	175.4	171.4
52.5°	129.0	130.0	129.0	128.0	127.0	127.0	129.0	128.0
55°	91.7	90.7	90.7	90.7	91.7	91.7	90.7	89.7
57.5°	61.5	61.5	60.5	60.5	61.5	59.5	60.5	59.5
60°	39.3	39.3	39.3	39.3	38.3	39.3	39.3	39.3
62.5°	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
65°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
67.5°	10.1	11.1	11.1	11.1	10.1	10.1	10.1	10.1
70°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)